IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | | |
|---|---|---|---|
| Appellants | : Yoshiyuki MIYAGAWA et al. | Art Unit | : 3714 |
| Appl. No. | : 10/765,975 | Examiner | : Cornett B. Coburn |
| Filed | : January 29, 2004 | Conf. No. | : 2821 |
| For | : VIDEO GAME WITH FAST FORWARD AND SLOW MOTION FEATURES | | |

## APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Commissioner for Patents
U.S. Patent and Trademark Office
Customer Service Window, Mail Stop  Appeal Brief - Patents
Randolph Building
401 Dulany Street
Alexandria VA 22314

Sir:

This appeal is from the rejection of claims 1, 2, 4-7, and 9-10, as set forth in the Final Official Action of December 4, 2008.

A Notice of Appeal and a Pre-Appeal Brief Request for Review were filed on April 3, 2009 in response to the Final Official Action of December 4, 2008, and the one-month period for filing an Appeal Brief following a Panel Decision from Pre-Appeal Brief Review dated June 10, 2009 was set to expire on July 10, 2009.

The requisite fee for filing an Appeal Brief under 37 C.F.R. §41.20(b) (2) is submitted concurrently herewith. However, if for any reason the necessary fee is not associated with this file or the concurrently submitted fee is inadequate, the Commissioner is authorized to charge the fee for the Appeal Brief and any necessary extension of time fees to Deposit Account No. 19-0089.

P24672.A14

# TABLE OF CONTENTS

## I.     REAL PARTY IN INTEREST

The real party in interest is Kabushiki Kaisha Square Enix (also trading as Square Enix Co., Ltd.).

## II.   RELATED APPEALS AND INTERFERENCES

Appellants are not aware of any prior or pending appeals, interferences, or judicial proceedings that may be related to, directly affect, or be directly affected by or have a bearing on the Board's decision in the pending appeal.

### III.   STATUS OF THE CLAIMS

Claims 1-10 are pending in this application with claims 3 and 8 being withdrawn from consideration.

Claims 1-2, 4-7, and 9-10 stand finally rejected and are the subject of this appeal.

## IV. STATUS OF THE AMENDMENTS

No amendments to the claims were filed under 37 C.F.R. § 1.116 after the final rejection of the claims of December 4, 2008.

## V. SUMMARY OF THE CLAIMED SUBJECT MATTER

Initially, Appellants note that the following descriptions are made with respect to the independent claims and include references to particular parts of the specification. As such, the following are merely exemplary and are not a surrender of other aspects of the present invention that are also enabled by the present specification as well as those that are directed to equivalent structures or methods.

Independent claim 1 recites a computer readable recording medium having a program recorded for a video game to be executed by a computer, wherein said program comprises: forming a plurality of frame images constituting the video game sequentially; displaying the plurality of formed frame images by switching the frame images from a frame buffer; predicting formation time periods of said plurality of frame images when said frame images are individually formed; determining game progress to be made by said frame images, in dependence upon the formation time periods of said frame images, as predicted; and changing said determined game progress, in response to an operation input by a player, wherein the rate of tempo of game music and the rate of formation of said frame images and said determined game progress is increased, when a player inputs a first predetermined instruction, and wherein the rate of tempo of the game music and the rate of formation of said frame images and said determined game progress is decreased, when a player inputs a second predetermined instruction.

In this regard, exemplary embodiments of the present specification are shown in Figures 1-21, and disclosed at page 11, line 14 to page 82, line 6 of the present application as filed, and particularly in an embodiment disclosed with respect to Figure 8. The exemplary embodiments disclose a computer readable recording medium (40) having a program (41) recorded for a video game to be executed by a computer (100) (page 15,

line 14 to page 16, line 2; page 81, line 14-18), wherein said program (41) comprises: forming a plurality of frame images constituting the video game sequentially (page 14 line 1 to page 15, line 3; page 17, line 13 to page 18, line 2; page 25, lines 4-10); displaying the plurality of formed frame images by switching the frame images from a frame buffer (page 14, line 1 to page 15, line3); predicting formation time periods of said plurality of frame images when said frame images are individually formed (S121) (page 14, line 13 to page 15, line 3; page 28, lines 1-8); determining game progress to be made by said frame images, in dependence upon the formation time periods of said frame images, as predicted (S122) (page 28, line 16 to page 29, line 20); and changing said determined game progress, in response to an operation input by a player (S124, S125) (page 30, lines 8 to page 34, line 14), wherein the rate of tempo of game music and the rate of formation of said frame images and said determined game progress is increased, when a player inputs a first predetermined instruction (S200) (page 30, line 8 to page 31, line 8), and wherein the rate of tempo of the game music and the rate of formation of said frame images and said determined game progress is decreased, when a player inputs a second predetermined instruction (S300) (page 31, line 9 to page 34, line 7).

Independent claim 4 recites a computer readable recording medium having a program recorded for a video game to be executed by a computer, wherein said program comprises: forming a plurality of frame images constituting the video game, sequentially in synchronism with the ends of the formations of the individually preceding frame images; displaying said plurality of formed frame images, such that said plurality of formed frame images are switched from a frame buffer and displayed after one of the individual formations ends in synchronism with a predetermined clock signal having a frame image display period of a shortest time period for switching display of said plurality of frame images; predicting formation time periods of said plurality of frame

images when said frame images are individually formed; determining game progress to be made by said frame images, in dependence upon the predicted formation time periods; and changing said determined game progress in response to an operation input by a player, wherein the rate of tempo of game music and the rate of formation of said frame images and said determined game progress is increased, when a player inputs a first predetermined instruction, and wherein the rate of tempo of the game music and the rate of formation of said frame images and said determined game progress is decreased, when a player inputs a second predetermined instruction.

In this regard, exemplary embodiments of the present specification are shown in Figures 1-21, and disclosed at page 11, line 14 to page 82, line 6 of the present application as filed. The exemplary embodiments disclose a computer readable recording medium (40) having a program (41) recorded for a video game to be executed by a computer (100) (page 15, line 14 to page 16, line 2; page 81, line 14-18), wherein said program (41) comprises: forming a plurality of frame images constituting the video game, sequentially in synchronism with the ends of the formations of the individually preceding frame images (page 14 line 1 to page 15, line 3; page 17, line 13 to page 18, line 2; page 25, lines 4-10); displaying said plurality of formed frame images, such that said plurality of formed frame images are switched from a frame buffer and displayed after one of the individual formations ends in synchronism with a predetermined clock signal having a frame image display period of a shortest time period for switching display of said plurality of frame images (S160) (page 14, line 1 to page 15, line3; page 39, line 15 to page 40, line 6); predicting formation time periods of said plurality of frame images when said frame images are individually formed (S121) (page 14, line 13 to page 15, line 3; page 28, lines 1-8); determining game progress to be made by said frame images, in dependence upon the predicted formation time periods (S122) (page 28, line 16 to page

29, line 20); and changing said determined game progress in response to an operation input by a player (S124, S125) (page 30, lines 8 to page 34, line 14), wherein the rate of tempo of game music and the rate of formation of said frame images and said determined game progress is increased, when a player inputs a first predetermined instruction (S200) (page 30, line 8 to page 31, line 8), and wherein the rate of tempo of the game music and the rate of formation of said frame images and said determined game progress is decreased, when a player inputs a second predetermined instruction (S300) (page 31, line 9 to page 34, line 7).

Independent claim 6 recites a game display method, comprising: sequentially forming frame images constituting a video game; displaying the formed frame images by switching the frame images from a frame buffer; predicting formation time periods of the frame images when the frame images are individually formed; determining game progress of the frame images, based upon predicted formation time periods of said frame images; and changing the determined game progress, in response to a player operation input, wherein the rate of tempo of game music and the rate of formation of said frame images and said determined game progress is increased, when a player inputs a first predetermined instruction, and wherein the rate of tempo of the game music and the rate of formation of said frame images and said determined game progress is decreased, when a player inputs a second predetermined instruction.

In this regard, exemplary embodiments of the present specification are shown in Figures 1-21, and disclosed at page 11, line 14 to page 82, line 6 of the present application as filed, and particularly in an embodiment disclosed with respect to Figure 8. The exemplary embodiments disclose a game display method, comprising: sequentially forming frame images constituting a video game (page 14 line 1 to page 15, line 3; page 17, line 13 to page 18, line 2; page 25, lines 4-10); displaying the formed frame images

by switching the frame images from a frame buffer (page 14, line 1 to page 15, line3);

predicting formation time periods of the frame images when the frame images are individually formed (S121) (page 14, line 13 to page 15, line 3; page 28, lines 1-8); determining game progress of the frame images, based upon predicted formation time periods of said frame images (S122) (page 28, line 16 to page 29, line 20); and changing the determined game progress, in response to a player operation input (S124, S125) (page 30, lines 8 to page 34, line 14), wherein the rate of tempo of game music and the rate of formation of said frame images and said determined game progress is increased, when a player inputs a first predetermined instruction (S200) (page 30, line 8 to page 31, line 8), and wherein the rate of tempo of the game music and the rate of formation of said frame images and said determined game progress is decreased, when a player inputs a second predetermined instruction (S300) (page 31, line 9 to page 34, line 7).

Independent claim 9 recites a game display method, comprising: sequentially forming frame images constituting a video game, each frame image being formed in synchronism with an end of formation of a preceding frame image; displaying the formed frame images, such that the frame images are switched from a frame buffer and displayed after a preceding frame has finished formation in synchronism with a predetermined clock signal having a frame image display period of a shortest time period for switching display of the frame images; predicting a formation time period of each frame image when each frame image is formed; determining game progress of each frame image, based upon the predicted formation time period; and changing the determined game progress in response to an operation input by a player, wherein the rate of tempo of game music and the rate of formation of said frame images and said determined game progress is increased, when a player inputs a first predetermined instruction, and wherein the rate of tempo of the game music and the rate of formation of said frame images and said

determined game progress is decreased, when a player inputs a second predetermined instruction.

In this regard, exemplary embodiments of the present specification are shown in Figures 1-21, and disclosed at page 11, line 14 to page 82, line 6 of the present application as filed. The exemplary embodiments disclose a game display method, comprising: sequentially forming frame images constituting a video game, each frame image being formed in synchronism with an end of formation of a preceding frame image (page 14 line 1 to page 15, line 3; page 17, line 13 to page 18, line 2; page 25, lines 4-10); displaying the formed frame images, such that the frame images are switched from a frame buffer and displayed after a preceding frame has finished formation in synchronism with a predetermined clock signal having a frame image display period of a shortest time period for switching display of the frame images (S160) (page 14, line 1 to page 15, line3; page 39, line 15 to page 40, line 6); predicting a formation time period of each frame image when each frame image is formed (S121) (page 14, line 13 to page 15, line 3; page 28, lines 1-8); determining game progress of each frame image, based upon the predicted formation time period (S122) (page 28, line 16 to page 29, line 20); and changing the determined game progress in response to an operation input by a player (S124, S125) (page 30, lines 8 to page 34, line 14), wherein the rate of tempo of game music and the rate of formation of said frame images and said determined game progress is increased, when a player inputs a first predetermined instruction (S200) (page 30, line 8 to page 31, line 8), and wherein the rate of tempo of the game music and the rate of formation of said frame images and said determined game progress is decreased, when a player inputs a second predetermined instruction (S300) (page 31, line 9 to page 34, line 7).

## VI.   GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-2, 4-7, and 9-10 (*i.e.*, all pending and non-withdrawn claims) were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,313,838 to Deering (hereinafter "DEERING").

## VII.   ARGUMENT

Initially, Appellants note that, in the Final Official Action of December 4, 2008

(hereinafter "Final Official Action"), it appears that the Examiner has incorrectly referred

to the claims of the present application in rejecting claims 1, 2, 4-7, and 9-10 under 35

U.S.C. § 103(a) as being unpatentable over DEERING.  Accordingly, Appellants initially

address the Examiner's apparent rejection of independent claims 1, 4, 6, and 9 in the

Final Official Action, and then address the rejection of each of claims 1, 2, 4-7, and 9-10

as recited in the Final Official Action.

> ***A.***    ***The Features of Independent Claims 1, 4, 6, and 9 of***
> ***Increasing/Decreasing the Rate of Formation of Frame Images when a***
> ***Player Inputs a First/Second Predetermined Instruction are Not Disclosed***
> ***or Rendered Obvious***

The present application generally relates to a method and a computer readable

medium for dynamically changing a game progressing speed based upon an operation of

a player.  Specifically, each of independent claims 1, 4, 6, and 9, as listed in the Response

of July 8, 2008, recite one of a computer readable recording medium having a program

recorded for a video game to be executed by a computer and a game display method

generally including, in part and as recited by independent claim 1, for example:

> *wherein . . . the rate of formation of said frame images and said*
> *determined game progress is increased, when a player inputs a first*
> *predetermined instruction, and*

> *wherein . . . the rate of formation of said frame images and said*
> *determined game progress is decreased, when a player inputs a second*
> *predetermined instruction.*

According to the above-recited features, the rate of formation of the frame images which

constitute the video game is able to be increased and decreased.  That is, in response to a

first predetermined instruction, the rate of formation of frame images is increased to

increase (*i.e.*, speed up) a progress of the video game, while, in response to a second predetermined instruction, the rate of formation of frame images is decreased to decrease (*i.e.*, slow down) a progress of the video.

For example, in a non-limiting and exemplary embodiment of the features of independent claims 1, 4, 6, and 9, when a game character is walking down a long corridor, a player can input the first predetermined instruction to increase the rate at which the game character traverses the long character. Appellants note that the above-noted exemplary embodiment is distinguished from the player merely causing the game character to run down the long corridor. That is, as opposed to merely causing the game character to traverse a greater distance during each frame period, independent claims 1, 4, 6, and 9 recite that the rate of formation of the frame periods is increased. In other words, the game character traverses the same distance during each frame period, but the frames are formed and displayed at a faster rate, thereby causing the game character to traverse the long corridor in the same number of frame periods but in a shorter time period (*see e.g.* Figure 3 of the present application). Furthermore, according to another non-limiting and exemplary embodiment of the features of independent claims 1, 4, 6, and 9, if a game character is battling an enemy character, the player can input the second predetermined instruction to decrease the rate at which the battle progresses (*i.e.*, the player character can input the second predetermined instruction to receive more time to respond to the enemy character's advances).

1.   The Features of Independent Claims 1, 4, 6, and 9 of
     Increasing/Decreasing the Rate of Formation of Frame Images when
     a Player Inputs a First/Second Predetermined Instruction are Not
     Inherent in Video Games

With respect to the above-recited features of changing the determined game progress, based on the rate of formation of frame images, in response to an operation input by a player, the Examiner does not argue that DEERING discloses, or even suggests, such a feature. To the contrary, the Examiner merely asserts, on page 3 of the Final Official Action, that such features are mere matters of design choice. Specifically, the Examiner asserts that, "[t]he choice of . . . rate of formation of frame images & determined game progress depending on the command issued in a video game is a matter of design choice that is well within the level of ordinary skill in the art."

Even assuming, *arguendo*, that the choice of rate of formation of frame images is a matter of design choice, Appellants respectfully submit that independent claims 1, 4, 6, and 9 are distinguished from such a feature. That is, independent claims 1, 4, 6, and 9 recite that the rate of formation of frame images is increased or decreased when a player inputs a first or second predetermined instruction (*e.g.*, if ten frame images are generally produced during a given time period, then fifteen frame images are produced during the given time period in response to the first predetermined instruction while five frame images are produced during the given time period in response to the second predetermined instruction). In other words, Appellants respectfully submit that increasing/decreasing the rate of formation of frame images is distinguished from choosing an initial rate of formation of frame images. In the Final Official Action, the Examiner fails to even address the feature of changing the rate of formation of frame images.

Furthermore, Appellants note that, in the Final Official Action, the Examiner asserts that video games inherently include changing the determined game progress based on character movement rates or direction in response to an operation input by a player. As noted above, the features of independent claims 1, 4, 6, and 9 of changing the rate of formation of frame images are distinguished from changing a character movement rate. That is, changing the rate of formation of frame periods changes the rate in which frames are produced while changing a character movement rate changes the rate at which a character moves between frames.

> 2. **DEERING Fails to Disclose or Render Obvious the Features of Independent Claims 1, 4, 6, and 9 of Increasing/Decreasing the Rate of Formation of Frame Images when a Player Inputs a First/Second Predetermined Instruction**

With respect to DEERING, Appellants note that DEERING merely appears to disclose maintaining a minimum frame rate in a video game (and not a constant frame rate, as asserted by the Examiner). DEERING discloses estimating scene rendering time on a frame-by-frame basis to ensure that the minimum frame rate is maintained. If the minimum frame rate will not be maintained, then DEERING discloses adjusting rendering parameters, such as the number shapes, pixels, features, etc., of the frames to be displayed in order to maintain the minimum frame rate. (DEERING, col. 3, lines 55-60). In other words, DEERING discloses modifying the formation of frames to ensure that a minimum frame rate is maintained. DEERING, however, does not disclose increasing or decreasing the rate of tempo of game music and the rate of formation of frame images in response to an operation input by a player.

For at least the reasons set forth above, Appellants respectfully submit that DEERING fails to disclose or render obvious at least the above-recited features of independent claims 1, 4, 6, and 9 of increasing/decreasing the rate of formation of frame images and determined game progress when a player inputs first/second predetermined instructions. Appellants further submit that the Examiner's assertions that the above-recited features of independent claims 1, 4, 6, and 9 are mere matters of design choice are clearly erroneous. Thus, for at least these reasons, Appellants respectfully request that the rejection of independent claims 1, 4, 6, and 9 under 35 U.S.C. § 103 in view of DEERING be reversed.

**B.** **The Features of Independent Claims 1, 4, 6, and 9 of Increasing/Decreasing the Rate of Tempo of Game Music when a Player Inputs a First/Second Predetermined Instruction are Not Disclosed or Rendered Obvious**

In addition to, and independently of, the above, each of independent claims 1, 4, 6, and 9, as listed in the Response of July 8, 2008, recite one of a computer readable recording medium having a program recorded for a video game to be executed by a computer and a game display method generally including, in part and as recited by independent claim 1, for example:

> *wherein the rate of tempo of game music . . . is increased, when a player inputs a first predetermined instruction, and*

> *wherein the rate of tempo of the game music . . . is decreased, when a player inputs a second predetermined instruction.*

Appellants respectfully submit that such features are not disclosed or rendered obvious by DEERING and are not mere matters of design choice as asserted by the Examiner in the Final Official Action.

1.   **The Features of Independent Claims 1, 4, 6, and 9 of Increasing/Decreasing the Rate of Tempo of Game Music when a Player Inputs a First/Second Predetermined Instruction are Not Inherent in Video Games**

In the Final Official Action, the Examiner does not even assert that DEERING discloses or renders obvious increasing/decreasing the rate of tempo of game music when a player inputs a first/second predetermined instruction. To the contrary, the Examiner merely asserts, on page 3 of the Final Official Action, that "[t]he choice of rate of tempo of game music . . . is a matter of design choice that is well within the level of ordinary skill in the art."

In this regard, even assuming, *arguendo*, that the choice of rate of tempo of game music is a matter of design choice, Appellants respectfully submit that the recited features of independent claims 1, 4, 6, and 9 of changing the rate of tempo of game music when a player inputs first and second predetermined instructions is distinguished from merely choosing the rate of tempo of game music. That is, a programmer may establish a rate of tempo of game music when designing a game. However, the feature of changing the rate of tempo of game music in response to an instruction is distinguished from merely selecting a rate of tempo of game music when designing a game. Appellants respectfully submit that such a feature cannot be reasonably interpreted to be a mere matter of design choice when designing a game. Accordingly, Appellants submit that the Examiner's assertion that the above-recited features of independent claims 1, 4, 6, and 9 are mere matters of design choice is clearly erroneous.

2. **DEERING Fails to Disclose or Render Obvious the Features of Independent Claims 1, 4, 6, and 9 of Increasing/Decreasing the Rate of Tempo of Game Music when a Player Inputs a First/Second Predetermined Instruction**

With respect to the above-recited features of independent claims 1, 4, 6, and 9 of increasing/decreasing the rate of tempo of game music, DEERING does not even disclose or discuss the tempo of game music. Accordingly, Appellants respectfully submit that DEERING cannot be reasonably interpreted to disclose or render obvious such features.

For at least these additional reasons as set forth above, Appellants respectfully submit that DEERING fails to disclose or render obvious at least the above-recited features of independent claims 1, 4, 6, and 9 of increasing/decreasing the rate of tempo of game music when a player inputs a first/second predetermined instruction. Appellants further submit that the Examiner's assertion that the above-recited features are mere matters of design choice is clearly erroneous. Thus, for at least these additional reasons, Appellants respectfully request that the rejection of independent claims 1, 4, 6, and 9 under 35 U.S.C. § 103 in view of DEERING be reversed.

## C.     The Rejection of Claim 1 is Improper

According to the Manual of Patent Examining Procedure § 2142, "[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness." In this regard, the Manual of Patent Examining Procedure §2143.03 further provides that, "'[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.' *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)."

In the Final Official Action, Appellants respectfully submit that the Examiner has failed to consider each limitation of claim 1. Specifically, the Examiner has failed to consider at least the limitations of claim 1 of:

> *wherein the rate of tempo of game music and the rate of formation of said frame images and said determined game progress is increased, when a player inputs a first predetermined instruction, and*

> *wherein the rate of tempo of the game music and the rate of formation of said frame images and said determined game progress is decreased, when a player inputs a second predetermined instruction.*

To the contrary, the Examiner merely asserts, on page 3 of the Final Official Action, that "[t]he choice of rate of tempo of game music, rate of formation of frame images & determined game progress depending on the command issued in a video game is a matter of design choice that is well within the level of ordinary skill in the art." However, the Examiner fails to consider the recited features of claim 1 of increasing/decreasing the rate of tempo of game music and the rate of formation of frame images when a player inputs first/second predetermined instructions. Assuming, *arguendo*, that the choice of rate of tempo of game music and the rate of formation of frame images are mere matters of design choice, the Examiner has failed to even address the recited features of increasing/decreasing the rate of tempo of game music in response to an instruction input by a player. In this regard, Appellants submit that increasing the rate of tempo of game music and the rate of formation of frame images in response to a first predetermined instruction and decreasing the rate of tempo of game music and the rate of formation of frame images in response to a second predetermined instruction are distinguished from the design choice of selecting a rate of tempo of game music and a rate of formation of frame images and cannot be reasonably interpreted to be mere matters of design choice.

Accordingly, in view of the above, Appellants respectfully submit that the Examiner has failed to satisfy the burden for establishing a *prima facie* case of obviousness as set forth by the Manual of Patent Examining Procedure § 2142. Thus, Appellants respectfully submit that the rejection of independent claim 1 is improper and respectfully request that the rejection of independent claim 1 under 35 U.S.C. § 103 in view of DEERING be reversed.

### D. The Rejection of Claims 2 and 7 is Improper

As previously noted, in order to establish a *prima facie* case of obviousness under 35 U.S.C. § 103, according to the Manual of Patent Examining Procedure § 2142, the Examiner must clearly and explicitly set forth the reasons and/or provide support for a determination of obviousness. Specifically, as discussed by § 2142 of the Manual of Patent Examining Procedure:

> *The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR International Co. v. Teleflex Inc., 550 U.S. ___, ___, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Federal Circuit has stated that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also KSR, 550 U.S. at ___ , 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval).*

In the Final Official Action, with respect to the Examiner's rejection of claims 2 and 7, the Examiner merely asserts, "[t]he predicted formation time periods of said plurality of frame images are expressed in units of a frame image display period of a shortest period of switching display of said frame images – i.e., the frame rate."

In this regard, Appellants note that claims 2 recites, "wherein said predicted formation time periods of said plurality of frame images are expressed in units of a frame image display period of a shortest period of switching display of said frame images," and claim 7 recites, "wherein the predicted formation time periods are expressed in units of a frame image display period comprising a shortest period of switching display of the frame images."

Thus, in rejecting claims 2 and 7 in the Final Official Action under 35 U.S.C. § 103, it appears that the Examiner has merely reiterated the language of claims 2 and 7 and has failed to set forth any rationale or reasoning to support a determination of obviousness. Accordingly, at least for this reason, Appellants respectfully submit that the rejection of claims 2 and 7 under 35 U.S.C. § 103 is improper, and thus, respectfully request that the rejection of claims 2 and 7 under 35 U.S.C. § 103 in view of DEERING be reversed.

### E.    The Rejection of Claims 4, 5, 9, and 10 is Improper

As previously noted, according to the Manual of Patent Examining Procedure § 2142, "[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness." In this regard, also as previously noted, the Manual of Patent Examining Procedure §2143.03 further provides that, "'[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.' *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)." Furthermore, according to the Manual of Patent Examining Procedure § 2142, the Examiner must clearly and explicitly set forth the reasons and/or provide support for a determination of obviousness.

### 1.   The Examiner has Failed to Set Forth a *Prima Facie* Case of Obviousness in Rejecting Claim 4

With respect to claim 4 of the present application, Appellants respectfully submit that the Examiner has failed to satisfy the initial burden of supporting a *prima facie* conclusion of obviousness. Specifically, claim 4 recites:

> *4. A computer readable recording medium having a program recorded for a video game to be executed by a computer, wherein said program comprises:*
>
> *forming a plurality of frame images constituting the video game, sequentially in synchronism with the ends of the formations of the individually preceding frame images;*
>
> *displaying said plurality of formed frame images, such that said plurality of formed frame images are switched from a frame buffer and displayed after one of the individual formations ends in synchronism with a predetermined clock signal having a frame image display period of a shortest time period for switching display of said plurality of frame images;*
>
> *predicting formation time periods of said plurality of frame images when said frame images are individually formed;*
>
> *determining game progress to be made by said frame images, in dependence upon the predicted formation time periods; and*
>
> *changing said determined game progress in response to an operation input by a player,*
>
> *wherein the rate of tempo of game music and the rate of formation of said frame images and said determined game progress is increased, when a player inputs a first predetermined instruction, and*
>
> *wherein the rate of tempo of the game music and the rate of formation of said frame images and said determined game progress is decreased, when a player inputs a second predetermined instruction.*

Notwithstanding the scope of claim 4, on page 3 of the Final Official Action, in rejecting claim 4 under 35 U.S.C. § 103(a) as being unpatentable over DEERING, the Examiner simply asserts that, "Examiner considers the predetermined clock signal of

claims 4, 5, 9 & 10 to refer to the video synchronization signals that are inherent in video monitors."

In view of the Examiner's simple assertion, Appellants respectfully submit that the Examiner has failed to consider each and every word of the claim in accordance with §2143.03 of the Manual of Patent Examining Procedure. Specifically, the Examiner has once again failed to address the limitations of increasing/decreasing a rate of tempo of game music and a rate of formation of frame images in response to first/second predetermined instructions input by a user. Additionally, the Examiner has also failed to consider at least the claim limitations of predicting formation time periods of a plurality of frame images when the frame images are individually formed, determining a game progress to be made by the frame images, in dependence upon the predicted formation time periods, and changing the determined game progress in response to an operation input by a player. According to such features, the rate of displaying the frame images, as shown in Figure 3 of the present application, is determined. Appellants respectfully submit that, contrary to the Examiner's assertion, such features are distinct from merely synchronizing the display of frame images with a clock cycle.

Furthermore, in addition to the above and with respect to the rejection of claim 4, the Examiner has failed to set forth any appropriate rational in determining obviousness in accordance with § 2142 of the Manual of Patent Examining Procedure. Accordingly, Appellants respectfully submit that the rejection of claim 4 under 35 U.S.C. § 103 is improper and request that the rejection of claim 4 under 35 U.S.C. § 103 in view of DEERING be reversed.

### 2. The Examiner has Failed to Set Forth a *Prima Facie* Case of Obviousness in Rejecting Claim 9

With respect to claim 9 of the present application, Appellants respectfully submit that the Examiner has failed to satisfy the initial burden of supporting a *prima facie* conclusion of obviousness. Specifically, claim 9 recites:

> *9. A game display method, comprising:*
>
> *sequentially forming frame images constituting a video game, each frame image being formed in synchronism with an end of formation of a preceding frame image;*
>
> *displaying the formed frame images, such that the frame images are switched from a frame buffer and displayed after a preceding frame has finished formation in synchronism with a predetermined clock signal having a frame image display period of a shortest time period for switching display of the frame images;*
>
> *predicting a formation time period of each frame image when each frame image is formed;*
>
> *determining game progress of each frame image, based upon the predicted formation time period; and*
>
> *changing the determined game progress in response to an operation input by a player,*
>
> *wherein the rate of tempo of game music and the rate of formation of said frame images and said determined game progress is increased, when a player inputs a first predetermined instruction, and*
>
> *wherein the rate of tempo of the game music and the rate of formation of said frame images and said determined game progress is decreased, when a player inputs a second predetermined instruction.*

Notwithstanding the scope of claim 9, on page 3 of the Final Official Action, in rejecting claim 9 under 35 U.S.C. § 103(a) as being unpatentable over DEERING, the Examiner simply asserts that, "Examiner considers the predetermined clock signal of claims 4, 5, 9 & 10 to refer to the video synchronization signals that are inherent in video monitors."

In view of the Examiner's simple assertion, Appellants respectfully submit that the Examiner has once again failed to consider each and every word of the claim in accordance with §2143.03 of the Manual of Patent Examining Procedure. Specifically, the Examiner has again failed to consider the limitations of increasing/decreasing a rate of tempo of game music and a rate of formation of frame images in response to first/second predetermined instructions input by a user. Additionally, the Examiner has also failed to consider at least the claim limitations of predicting a formation time period of each frame image when each frame image is formed, determining a game progress of each frame image, based upon the predicted formation time period, and changing the determined game progress in response to an operation input by a player. According to such features, the rate of displaying the frame images, as shown in Figure 3 of the present application, is determined. Appellants respectfully submit that, contrary to the Examiner's assertion, such features are distinct from merely synchronizing the display of frame images with a clock cycle.

Furthermore, in addition to the above, Appellants further submit that the Examiner has failed to set forth any appropriate rational in determining obviousness in accordance with § 2142 of the Manual of Patent Examining Procedure. Accordingly, Appellants respectfully submit that the rejection of claim 9 under 35 U.S.C. § 103 is improper and request that the rejection of claim 9 under 35 U.S.C. § 103 in view of DEERING be reversed.

### 3. The Rejection of Claims 4, 5, 9, and 10 is Improperly Grouped

Additionally to, and independently of, the above, Appellants further note that the Manual of Patent Examining Procedure § 707.07(d) recites, in pertinent part, "[a]

plurality of claims should never be grouped together in a common rejection, unless that rejection is equally applicable to all claims in the group." Nonetheless, on page 3 of the Final Official Action, the Examiner has grouped claims 4, 5, 9, and 10, asserting that the "Examiner considers the predetermined clock signal of claims 4, 5, 9, and 10 to refer to the video synchronization signals that are inherent in video monitors.

At least based on the differing scopes of claims 4 and 9 compared with the scopes of claims 5 and 10, Appellants respectfully submit that the grouping of claims 4, 5, 9, and 10 is improper. That is, independent claims 4 and 9 generally recite a computer readable recording medium and a game display method, respectively, in which the formation time period of frame images is predicted, a game progress is determined based on the predicted time periods, and in which the game progress, the rate of tempo of game music, and the rate of formation of frame images is increased or decreased in response to a player input. On the other hand, dependent claims 4 and 10 each generally recite that the frame images are successively formed in synchronism with a clock signal.

In view of the above, Appellants respectfully submit that the Examiner's rejection of claims 4, 5, 9, and 10 cannot be reasonably interpreted to be equally applicable to all claims in the group. Accordingly, Appellants respectfully request that the rejection of claims 4, 5, 9, and 10 under 35 U.S.C. § 103 in view of DEERING be reversed.

**F.     *The Examiner has Failed to Address Independent Method Claim 6***

In addition to, and independently of, the above, Appellants further note that the Examiner has failed to address independent method claim 6 in the Final Official Action. This makes the rejection fatally defective on its face, since §2143.03 of the Manual of Patent Examining Procedure states that, "[a]ll words in a claim must be considered in

judging the patentability of that claim against the prior art." *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).
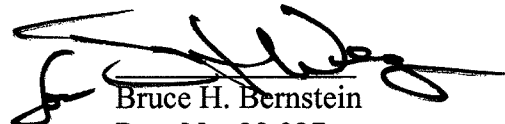
Accordingly, Appellants respectfully submit that the rejection of claims 1, 2, 4-7, and 9-10 under 35 U.S.C. § 103 as being unpatentable over DEERING is improper and respectfully request that the rejection be reversed.

### G. Conclusion

Accordingly, at least for the arguments set forth above, Appellants respectfully submit that each of claims 1-2, 4-7, and 9-10 is patentable for the reasons set forth herein. Specifically, independent claims 1, 4, 6, and 9 are not disclosed nor rendered obvious by DEERING. Furthermore, the outstanding rejection of claims 1-2, 4-7, and 9-10 is improper. Accordingly, Appellants respectfully request that the Board reverse the decision of the Examiner to reject claims 1-2, 4-7, and 9-10.

If there are any questions about this application, any representative of the U.S. Patent and Trademark Office is invited to contact the undersigned at the telephone number listed below.

Respectfully Submitted,
Yoshiyuki Miyagawa et al.

Bruce H. Bernstein
Reg. No. 29,027

**Steven Wegman
Reg. No. 31,438**

July 8, 2009
GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191

# VIII. CLAIMS APPENDIX

1. A computer readable recording medium having a program recorded for a video game to be executed by a computer, wherein said program comprises:

forming a plurality of frame images constituting the video game sequentially;

displaying the plurality of formed frame images by switching the frame images from a frame buffer;

predicting formation time periods of said plurality of frame images when said frame images are individually formed;

determining game progress to be made by said frame images, in dependence upon the formation time periods of said frame images, as predicted; and

changing said determined game progress, in response to an operation input by a player,

wherein the rate of tempo of game music and the rate of formation of said frame images and said determined game progress is increased, when a player inputs a first predetermined instruction, and

wherein the rate of tempo of the game music and the rate of formation of said frame images and said determined game progress is decreased, when a player inputs a second predetermined instruction.


2. The recording medium according to claim 1,

wherein said predicted formation time periods of said plurality of frame images are expressed in units of a frame image display period of a shortest period of switching display of said frame images.

4. A computer readable recording medium having a program recorded for a video game to be executed by a computer, wherein said program comprises:

forming a plurality of frame images constituting the video game, sequentially in synchronism with the ends of the formations of the individually preceding frame images;

displaying said plurality of formed frame images, such that said plurality of formed frame images are switched from a frame buffer and displayed after one of the individual formations ends in synchronism with a predetermined clock signal having a frame image display period of a shortest time period for switching display of said plurality of frame images;

predicting formation time periods of said plurality of frame images when said frame images are individually formed;

determining game progress to be made by said frame images, in dependence upon the predicted formation time periods; and

changing said determined game progress in response to an operation input by a player,

wherein the rate of tempo of game music and the rate of formation of said frame images and said determined game progress is increased, when a player inputs a first predetermined instruction, and

wherein the rate of tempo of the game music and the rate of formation of said frame images and said determined game progress is decreased, when a player inputs a second predetermined instruction.

5. The recording medium according to claim 4,

wherein said forming starts formation of a next frame image after the end of each formation of said plurality of frame images in synchronism with said clock signal.

6. A game display method, comprising:

sequentially forming frame images constituting a video game;

displaying the formed frame images by switching the frame images from a frame buffer;

predicting formation time periods of the frame images when the frame images are individually formed;

determining game progress of the frame images, based upon predicted formation time periods of said frame images; and

changing the determined game progress, in response to a player operation input,

wherein the rate of tempo of game music and the rate of formation of said frame images and said determined game progress is increased, when a player inputs a first predetermined instruction, and

wherein the rate of tempo of the game music and the rate of formation of said frame images and said determined game progress is decreased, when a player inputs a second predetermined instruction.

7. The method according to claim 6,

wherein the predicted formation time periods are expressed in units of a frame image display period comprising a shortest period of switching display of the frame images.

9. A game display method, comprising:

sequentially forming frame images constituting a video game, each frame image being formed in synchronism with an end of formation of a preceding frame image;

displaying the formed frame images, such that the frame images are switched from a frame buffer and displayed after a preceding frame has finished formation in synchronism with a predetermined clock signal having a frame image display period of a shortest time period for switching display of the frame images;

predicting a formation time period of each frame image when each frame image is formed;

determining game progress of each frame image, based upon the predicted formation time period; and

changing the determined game progress in response to an operation input by a player,

wherein the rate of tempo of game music and the rate of formation of said frame images and said determined game progress is increased, when a player inputs a first predetermined instruction, and

wherein the rate of tempo of the game music and the rate of formation of said frame images and said determined game progress is decreased, when a player inputs a second predetermined instruction.


10. The method according to claim 9,

wherein the forming further comprises starting formation of a next frame image after the end of formation of the frame image in synchronism with the clock signal.

## IX. <u>EVIDENCE APPENDIX</u>

None

## X.     <u>RELATED PROCEEDING APPENDIX</u>

None